Message

From: Nadine Kotlarz [nkotlar@ncsu.edu]
Sent: 4/26/2019 12:36:03 PM
To: Strynar, Mark [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5a9910d5b38e471497bd875fd329a20a-Strynar, Mark]
CC: Detlef R. U. Knappe [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=user17c3f77b]
Subject: Re: Hydro-EVE

Thanks
I'd be interested in sitting in on a meeting with Paul Resnick...

Nadine

On Fri, Apr 26, 2019 at 8:32 AM Strynar, Mark <Strynar.Mark@epa.gov> wrote:

> Nadine,
>
> I am not sure and I am not sure if Chemours knows that. If I were to guess I would say both.
>
> **From:** Nadine Kotlarz <nkotlar@ncsu.edu>
> **Sent:** Friday, April 26, 2019 8:25 AM
> **To:** Strynar, Mark <Strynar.Mark@epa.gov>
> **Cc:** Detlef R. U. Knappe <knappe@ncsu.edu>
> **Subject:** Re: Hydro-EVE
>
> OK
>
> Would you say that all of the ethers are produced onsite and then discharged to the Cape Fear, or are some formed in the Cape Fear? Or is it both?
>
> On Fri, Apr 26, 2019 at 8:22 AM Strynar, Mark <Strynar.Mark@epa.gov> wrote:
>
> > Nadine,
> >
> > I have no idea what is made and where. NCDEQ should have that info.

Mark

From: Nadine Kotlarz <nkotlar@ncsu.edu>
Sent: Friday, April 26, 2019 8:17 AM
To: Detlef R. U. Knappe <knappe@ncsu.edu>
Cc: Strynar, Mark <Strynar.Mark@epa.gov>
Subject: Re: Hydro-EVE

Thanks Mark

In what process area does Chemours produce the Ester Vinyl Ether (and, consequently, Hydro-EVE)?

My understanding is there are four areas at Fayetteville Works:

1. Fluoromonomer production (make HFPO here)

2. Nafion/IXM (make Nafion and PPVE here)

3. Polymer processing aid (make GenX here)

4. Wastewater treatment and powerhouse

Are the fluorointermediates like EVE made in #1?

Nadine

On Fri, Apr 26, 2019 at 8:10 AM Detlef Knappe <knappe@ncsu.edu> wrote:

> Thank you, Mark! It would be great to have such a tutorial. We can have it here at NCSU if it is easier. Do you want to ask him whether he's willing to do this? And what some possible dates are if yes? I am traveling the week of May 13 (Nadine, too), and the time from June 4 to June 21 is pretty bad for me (lots of different conference trips).
>
> Detlef

On Fri, Apr 26, 2019 at 7:56 AM Strynar, Mark <Strynar.Mark@epa.gov> wrote:

Detlef,

My understanding from Paul Resnick is during the HFPO polymerization to make HPO-DA that there is an amount of impurities of the PFO2HXA, PFO3OA, PFO4DA and PFO5DoA made in increasingly lower proportions. That he told me is why it is hard to make the larger ones as the are very small yield of things that are not targeted. To get them you need to do bad synthesis and purify chemicals of low yield.

I think we need to have Resnick come in and give us a one day tutorial on all of this stuff. He calls me regularly and we chat about this stuff. I take down as many notes as I can but I am sure I miss a lot.

For instance just this week we discussed how this chemical Nadine asked of is made.

CH3OCF2CF2COOCH3 turned into CH3OCF2CF2COF (acyl fluoride) that is reacted with HFPO to make what I think is Ester Vinyl Ether (EVE)

Mark

From: Detlef Knappe <knappe@ncsu.edu>
Sent: Thursday, April 25, 2019 11:06 PM
To: Nadine Kotlarz <nkotlar@ncsu.edu>
Cc: Strynar, Mark <Strynar.Mark@epa.gov>
Subject: Re: Hydro-EVE

...and while Nadine is asking... I have always been curious about the origins of the multi-ethers - PFO2HxA through PFO5DoDA...

Best,

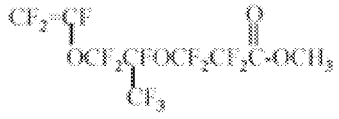
Detlef

On Thu, Apr 25, 2019 at 11:31 AM Nadine Kotlarz <nkotlar@ncsu.edu> wrote:

Mark,

I'm trying to understand the origin of Hydro-EVE.

EVE (Ester Vinyl Ether) a Chemours fluorointermediate.



Based on the product information for EVE, it looks like Hydro-EVE is an impurity in EVE.

Have you heard of Iso-EVE, another impurity listed?

Nadine